

**SYSTEM AND METHOD FOR INCREASING MAGNETING FLUX
EFFICIENCY AND CELL DENSITY IN MRAM DESIGN**

ABSTRACT

[0032] A magnetic memory device and the method for making same are disclosed. The device uses two metal lines to control a combined magnetic field created thereof. The device has a magnetic memory element connecting to a substrate at a first end thereof, a first metal line connecting to a second end of the magnetic memory element. Further, the device has a second metal line crossing perpendicularly over the first metal line for jointly generating the combined magnetic field, wherein the second metal line is on the side of the second end of the magnetic memory element.